

REMARKS

Applicants' attorney wishes to thank the Examiner for the careful consideration given to this application. The present invention relates to the provision of a sanitary article containing fibers bearing metallic silver. More particularly, the metallic silver is applied to fiber surfaces only and in a manner that provides a more constant silver ion concentration at the article surface facing the body during use.

For the Examiner's convenience, it is noted that process claim 49 has been amended to more closely conform it with claim 30. More particularly, claim 49 has been amended to recite that the binding of the metallic silver to the fiber surface is such that the metallic silver "cannot be flushed away from the fiber in use of the sanitary article". (See application, page 3, lines 12-17.)

It is respectfully requested that the Examiner reconsider and withdraw the rejection of claims 30-35, 37-39, 40-47, 49-52, 54 and 57-63 under 35 USC 102(b) as being anticipated by Hanke EP 1066825.

The Hanke patent is discussed and distinguished at page 1 of the present application. The Hanke patent teaches an anti-microbial body care product including "an organic matrix containing homogeneously dispersed particles of metallic silver". (Paragraph 0011.)

As discussed in the Hanke patent, it is known to apply a lotion containing homogeneously dispersed particles of metallic silver to a top sheet of a diaper by spraying. The disadvantage is that the effective concentration of silver ions present at the surface of the article may change when using the sanitary article such that the concentration of silver ions may become too low to have an anti-microbial effect. If that is counteracted by applying more silver, the silver concentration arising when initially using the article may be such that it acts cytotoxically to the cells of the skin or mucosa.

Hanke teaches that the silver particles are applied to surfaces of fibers in an oily fluid. (This is particularly discussed at page 1 of the present application.) The present invention is based on the knowledge that in a sanitary article produced in such a way, the silver particles may be flushed away into deeper layers of the sanitary article and that this is the cause for the variable concentration of the silver ions at the surface of the sanitary article. Hanke does not recognize the foregoing problem nor a solution. Accordingly, the claimed metallic silver at the surfaces of the fibers is not obvious based on the teachings in Hanke.

Hanke teaches that "the organic matrix into which said silver nanoparticles are homogeneously dispersed can be

solid or fluid". (Paragraph 0018.) In the case of a solid organic polymer matrix, a blank of the organic polymer is initially coated with the silver and thereafter processed by "grinding and/or melting said coated blank and finally providing a molded article out of this polymer containing the homogeneously dispersed silver nanoparticles".

(Paragraph 0021.) In the case of a fluid organic matrix, such as a viscous organic fluid, Hanke cites German Patent 44 40 521 as teaching the use of "vacuum evaporation of metallic silver on a liquid in a vacuum chamber" to obtain "a liquid organic matrix comprising a homogeneously extremely fine dispersion of silver particles". (Paragraph 0023.)

In the foregoing manner, Hanke teaches that the metallic silver is always homogeneously dispersed in the solid or fluid organic matrix. This is consistent with the patentee's statements in paragraph 0011 of the summary of his invention.

In the rejection, paragraph 0023 in Hanke is erroneously construed to teach chemically or physically attaching metallic silver to a surface of a matrix which comprises synthetic fibers as disclosed in paragraph 0018. No group of fibers is disclosed in paragraph 0018. Further, the evaporation technique referenced in paragraph 0023 of Hanke is used to provide a homogeneous dispersion of silver

particles throughout a fluid matrix only and not to deposit silver particles onto the surface of any matrix. In the case of a solid polymer matrix, the grinding and/or melting of the polymer blank is disclosed in paragraph 0021. Accordingly, the teaching in paragraph 0023 does not contemplate the application of silver to only the surface of an organic matrix formed of fiber.

For all of the foregoing reasons, it is submitted that all of the claims presently of record are in condition for final allowance and such action is requested.

If there are any fees required by this communication, please charge such fees to Deposit Account No. 16-0820, Order No. 36403.

Respectfully submitted,

By: 
Joseph J. Corso, Reg. No. 25845

1801 East Ninth Street
Suite 1200
Cleveland, Ohio 44114-3108

(216) 579-1700

June 15, 2006